GTS-250 series

SPECIFICATIONS

Model		GTS-252	GTS-255
Telescope			
Magnification		30x	
Resolving power		3.0"	
Length: 150mm, Objective aperture: 45mm (50mm for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m			
Angle measurement			
Display resolutions (selectable)		1" / 5" (0.0002 / 0.001gon)	
Accuracy (ISO 17123-3:2001)		2"	5"
Method		Absolute rotary encoder scanning	
Detecting system	Horizontal	2 sides	
	Vertical	1 side	
Compensator		Dual-axis liquid tilt sensor, working range: ±3', Correction unit: 1"	
Distance measurement			
Measuring range (under average conditions*1)	Mini prism	900m (3,000ft)	
	One prism	2,000m (6,600ft.) / Under good conditions*2: 2,300m (7,500ft.)	
	Three prisms	2,700m (8,900ft.) / Under good conditions*2: 3,100m (10,200ft.)	
Accuracy (D=measuring distance in mm)		±(2mm + 2ppm x D) m.s.e.	
Least count in measurement		Fine: 1mm (0.005ft.) / 0.2mm (0.001ft.), Coarse: 10mm (0.02ft.) / 1mm (0.005ft.), Tracking: 10mm (0.02ft.)	
Measurement time*3		Fine: 1mm: 1.2s (Initial 4s) / 0.2mm: 2.8s (Initial 5s), Coarse: 0.7s (Initial 3s), Tracking: 0.4s (Initial 3s)	
Interface and Data management			
Display		Graphics LCD, 160 × 64dots	
Keyboard		Alphanumeric 24keys	
Control panel location		On both faces	
Data storage	Internal memory	24,000pts.	
Interface		RS-232C	
General			
Levels	Circular level	10' / 2mm	
	Plate level	30" / 2mm	
Optical plummet telescope		Magnification: 3x, Focusing range: 0.5m to infinity, Image: Erect	
Dust and water protection (With BT-G1W)		IP54 (IEC 60529)	
Operating temperature		-20 to +50°C (-4 to 122°F)	
Size / Instrument height		W184 x D172 x H336mm (W7.2 x D6.8 x H13.2in.) /176mm (6.93in.) from the tribrach dish	
Weight	Instrument with battery	4.9kg (10.8lbs)	
	Plastic carrying case	3.4kg (7.5lbs), Weight of the carrying case may be slightly different due to specific market.	
Power supply			
Battery (BT-G1W)	Operating time (Fine mode)	Approx. 27 hours (Single distance measurement every 30 seconds at +20°C / +68°F*4)	
		Approx. 9 hours (Continuous distance measurement at +20°C / +68°F)	
Battery charger	Recharging time	1.8 hours (+10 to +40°C)	

*1 Average conditions: Slight haze with visibility about 20km (12.5 miles) moderate sunlight with light heat shimmer. *2 Good conditions: No haze with visibility about 40km (25 miles), overcast with no heat shimmer.
*3 The initial time will be different by a condition and setting EDM off time. *4 On the condition EDM off time is set at 0 minutes.

Standard Accessories
- Main unit x 1
- Battery (BT-G1W) x 1
- Battery Charger x 1
- Lens cap x 1
- Tool kit with case x 1
- Plastic rain cover x 1
- Silicon cloth x 1
- Carrying Case x 1

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Your local Authorized Topcon dealer is:

GTS-250 series

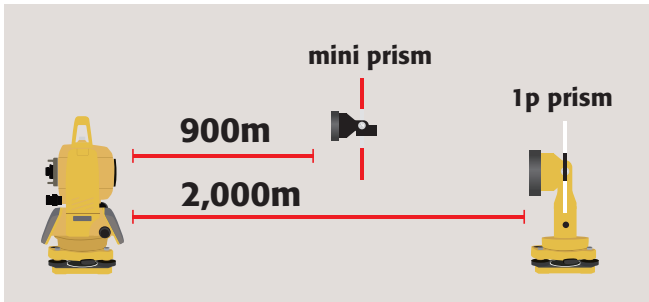
TOTAL STATION

High-Performance & High-Quality

- Superior Waterproof and Dustproof
- High Accuracy & Long Measuring Range
- Enhanced Absolute Encoder
- Versatile Application Functions
- Dual-Axis Tilt Sensor
- Designed by Topcon

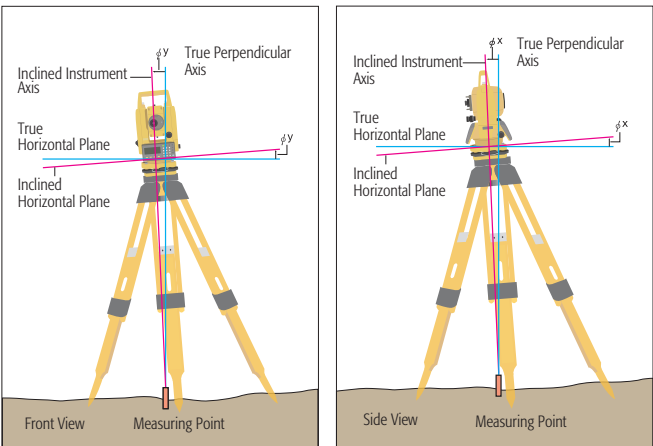
High-Performance & High-Quality

High Accuracy & Long Measuring Range

- High accuracy: ±(2mm+2ppm x D) m.s.e.
- Long distance: 2,000m with a Single Prism.

Superior Waterproof and Dustproof

GTS-250 series conform to IEC Standard IP54. No worry about sudden bad weather.

Dual-axis tilt sensor

The dual-axis tilt sensor monitors inclination of both the X and Y axes, and the correct horizontal and vertical angle readings automatically.

Enhanced Absolute Encoder

GTS-250 Series adopted an absolute encoder system, which doesn't require 0 set and realizes stable measurement with less reading error.

Extra-large memory capacity for 24,000 points

GTS-250 Series store the measured data up to 24,000 points.

PRIMARY FEATURES

Versatile Application Functions

On-board data collection, Survey, Layout, Road Calculation, and many more functions.

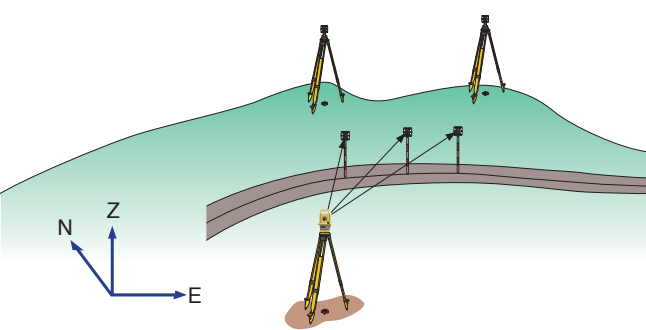
Remote Elevation Measurement (R.E.M.)

To easily determine the height of a point where a prism cannot be placed. Take a distance to a prism placed either directly above or directly below the target point, then sight to the target point.

Missing Line Measurement (M.L.M.)

To measure horizontal distance, slope distance and height difference between two prisms.

LAYOUT

Layout function for coordinate measurement and control stakeout and resection measurements.

Road

Road function automatically calculates parameters of a complicated spiral curve and a long distance route simply by defining the start point, end point and curve elements.